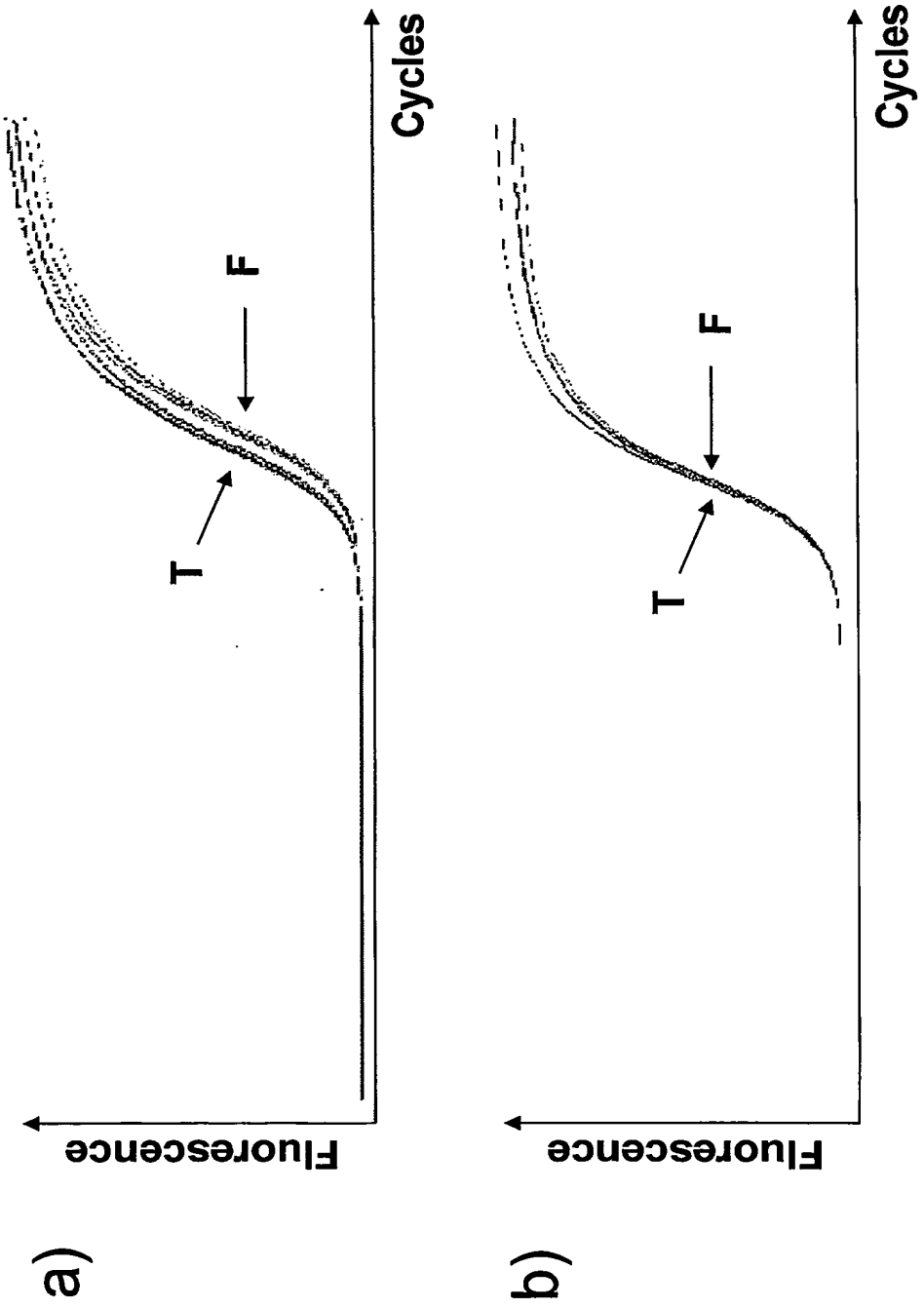

Fig. 1: Verification of differential expression of human SGPL1 by quantitative RT-PCR

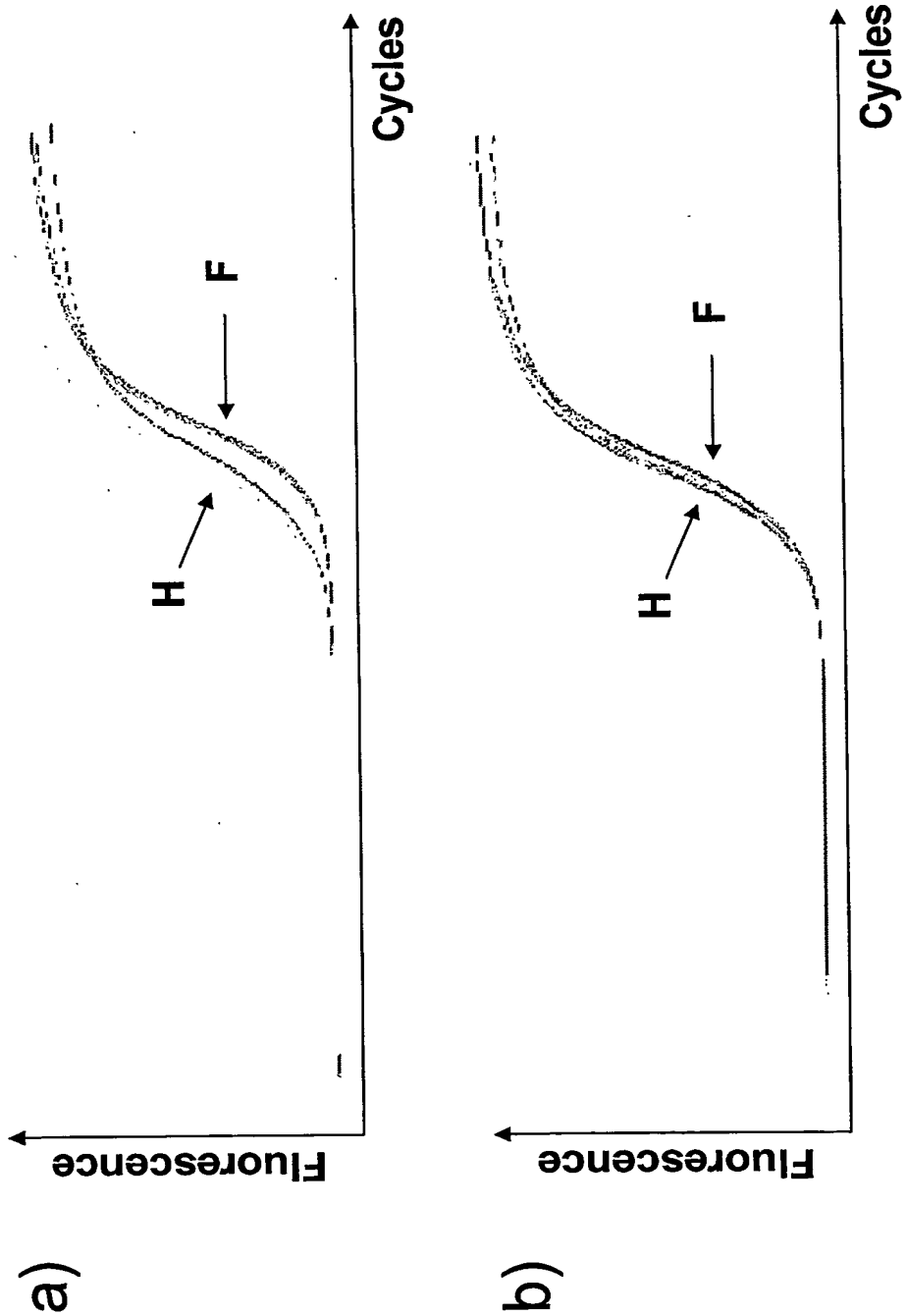

Fig. 2: Verification of differential expression of human SGPL1 by quantitative RT-PCR

Figure 3 : SEQ ID NO. 1: amino acid sequence of human SGPL1 protein

Length: 568 aa

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 51  LLIVWGYEFV FQPESLWSRF KKKCFKLTRK MPIIGRKIQD KLNKTKDDIS
101  KNMSFLKVDK EYVKALPSQG LSSSAVLEKL KEYSSMDAFW QEGRASGTVY
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201  DSCGCVTSGG TESILMACKA YRDLAFEKGI KTPEIVAPQS AHAAFNKAAS
251  YFGMKIVRVP LTKMMEVDVR AMRRAISRNT AMLVCSTPQF PHGVIDPVPE
301  VAKLAVKYKI PLHVDACLGG FLIVFMEKAG YPLEHPFDFR VKGVTSISAD
351  THKYGYAPKG SSLVLYSDKK YRNYQFFVDT DWQGGIYASP TIAGSRPGGI
401  SAAAWAALMH FGENGYVEAT KQIIKTARFL KSELENIKGI FVFGNPQLSV
451  IALGSRDFDI YRLSNLMTAK GWNLNQLQFP PSIHFCITLL HARKRVAIQF
501  LKDIRESVTQ IMKNPKAKTT GMGAIYGMAQ TTVDRNMVAE LSSVFLDSLY
551  STDTVTQGSQ MNGSPKPH
```

Figure 4: SEQ ID NO. 2:
human SGPL1 cDNA
nucleotide sequence

Length: 5741 bp

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  51  TGGGTCTCGC GGCCTGCGAG TCCGTCGCGT GCTGAGGGAG ACGCAGGAGG
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1951  GGTTCTTGGG ATATGGAACA GGCCGTGCAC AACTTTGACA TCTGGTCTTG
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2001 CTCCATAGAG CACAACTCAA GATAGACCAT GAGACAGCTT GAGCCTCAGG
2051 ATTCTTGTTC TTCCTCTTAT CTTCCTTTTG TGGTTTTTAA TTTGAAGACC
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2201 TACTTAAACA TTGTGTGGTA GCTCTGACCT GTCCTGATTC TTTAGAGAAG
2251 CTGGGGTACA GTTTATGAGA TAGCTAGAGC TTCTTTGTTA TCTCAGGCAG
2301 GAGGCGTTTA CATAACAGAT GTTTCCTCAG CTGGGTGTGA GGTATACTCT
2351 AAGCAGGAGG CTTTTTCAGC CTTCTCTCTC TTTTTTTTTT TTTTTTTTTT
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3251 GACTTACCCT AGGTGGGTGT GAAAGAGCAC CCGTAGCAAG GAAAATTTTC
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4501  CATGTGAATA TACTGCTATG TCACTTTTAA TATTACGAGT TTTATACTTG
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4651  TTAAATAGTT AAATGACCCT AATTGTAATT ACTGTGGATG GTTGCATTCA
4701  TTTGATTACT TGGGCACACA CGAGATGACA AATGGGGCAG TGGCCATGCT
4751  TGAATGGGCT CCTGGTGAGA GATTGCCCCC TGGTGGTGAA ACAATCGTGT
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4851  CATCTCATTT CCAGGCACTT CAATAGGTCG CTGATTGGTC CTTGCACCAG
4901  CAGTGGTAGT CGTACCTATT TCAGAGAGGT CTGAAATTCA GGTTCTTAGT
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5001  TTCTGCTTAC AGTTTGCTGC TTACAATAAC TTAATGATGG ATTGAGTTAT
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Figure 5: SEQ ID NO. 3: nucleotide sequence of human SGPL1 coding sequence

Length: 1707 bp

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 101  GCACCAAGTA TGAGCCCTGG CAGCTAATTG CATGGAGTGT CGTGTGGACC
 151  CTGCTGATAG TCTGGGGATA TGAGTTTGTC TTCCAGCCAG AGAGTTTATG
 201  GTCAAGGTTT AAAAAGAAAT GTTTTAAGCT CACCAGGAAG ATGCCCATTA
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 301  AAGAACATGT CATTCCTGAA AGTGGACAAA GAGTATGTGA AAGCTTTACC
 351  CTCCCAGGGT CTGAGCTCAT CTGCTGTTTT GGAGAAACTT AAGGAGTACA
 401  GCTCTATGGA CGCCTTCTGG CAAGAGGGGA GAGCCTCTGG AACAGTGTAC
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1601  ACAGGAATAT GGTTGCAGAA TTGTCCTCAG TCTTCTTGGA CAGCTTGTAC
1651  AGCACCGACA CTGTCACCCA GGGCAGCCAG ATGAATGGTT CTCCAAAACC
1701  CCACTGA
```

Fig. 6: Alignment of SGPL1 RT-PCR primers with human SGPL1 cDNA, SEQ ID NO.2

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   1 TGCCCACTGATACCAAGACCA 21
     |||||||||||||||||||||
4802 TGCCCACTGATACCAAGACCA 4822


  21 TCCATCTCATTTCCAGGCACT 1
     |||||||||||||||||||||
4849 TCCATCTCATTTCCAGGCACT 4869
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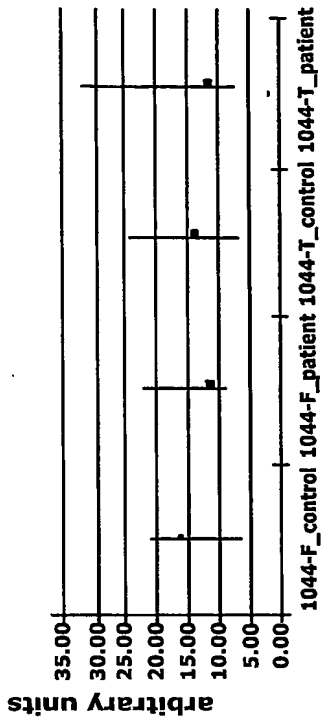
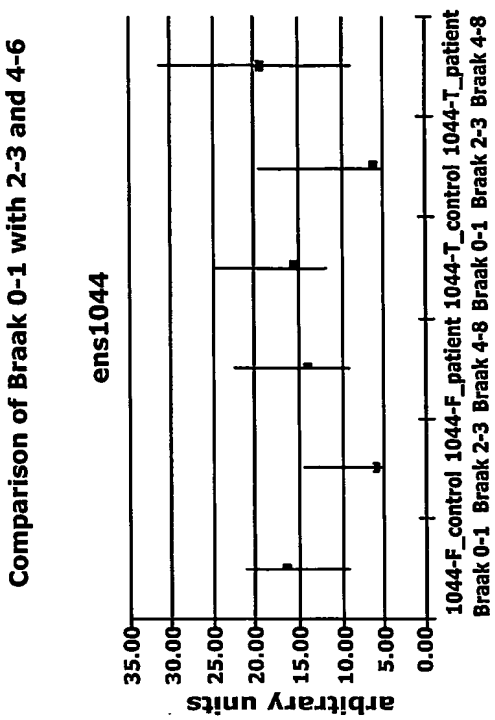
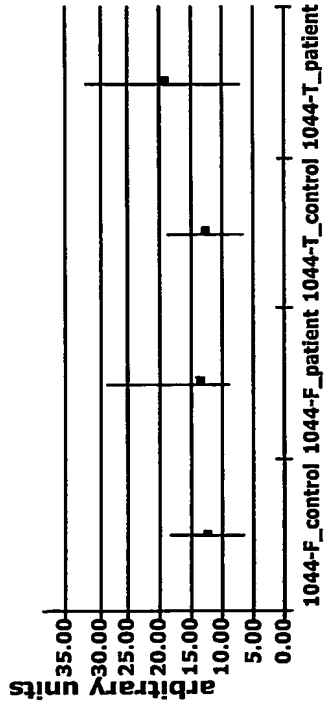
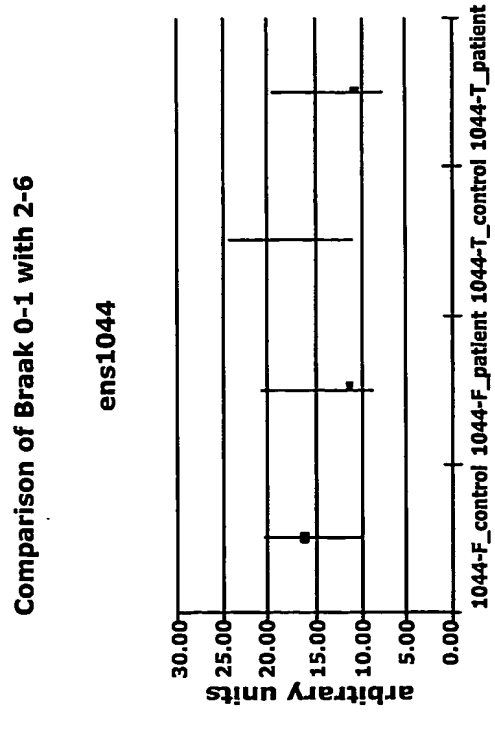
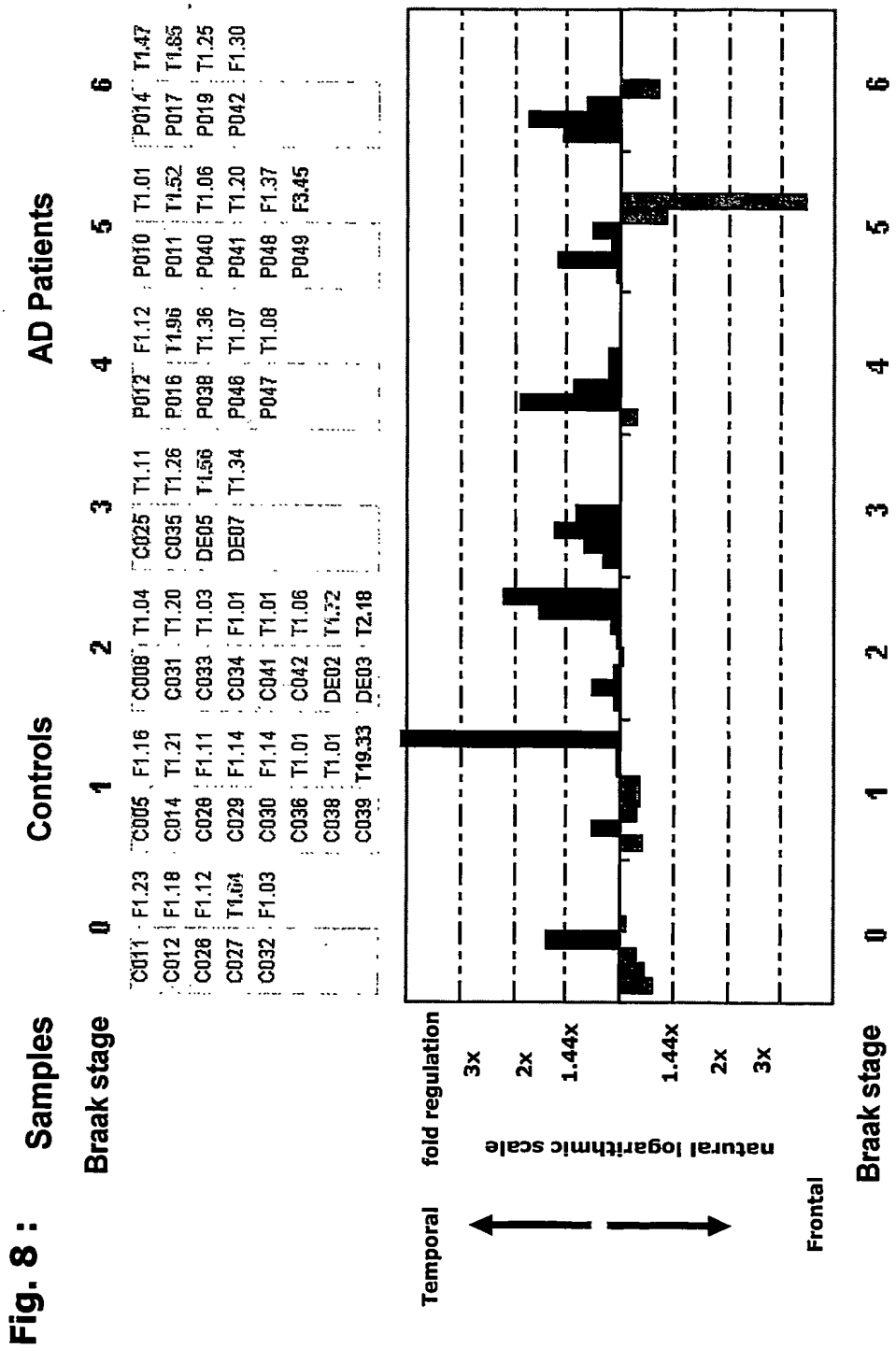
Fig.7: Analysis of absolute mRNA expression of SGPL1










Samples
Controls
AD Patients
Braak stage
0
1
2
3
4
5
6
C011 F1.23 C005 F1.16 C008 T1.04 C025 T1.11 P012 F1.12 P010 T1.01 P014 T1.47
C012 F1.18 C014 T1.21 C031 T1.20 C035 T1.26 P016 T1.96 P011 T1.52 P017 T1.85
C026 F1.12 C026 F1.11 C033 T1.03 DE05 T1.56 P038 T1.36 P040 T1.06 P019 T1.25
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C036 T1.01 C042 T1.06 P049 F3.45
C038 T1.01 DE02 T1.32
C039 T19.33 DE03 T2.18
Temporal
fold regulation
3x
2x
1.44x
natural logarithmic scale
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2x
3x
Frontal
Braak stage
0
1
2
3
4
5
6

Fig. 8 :

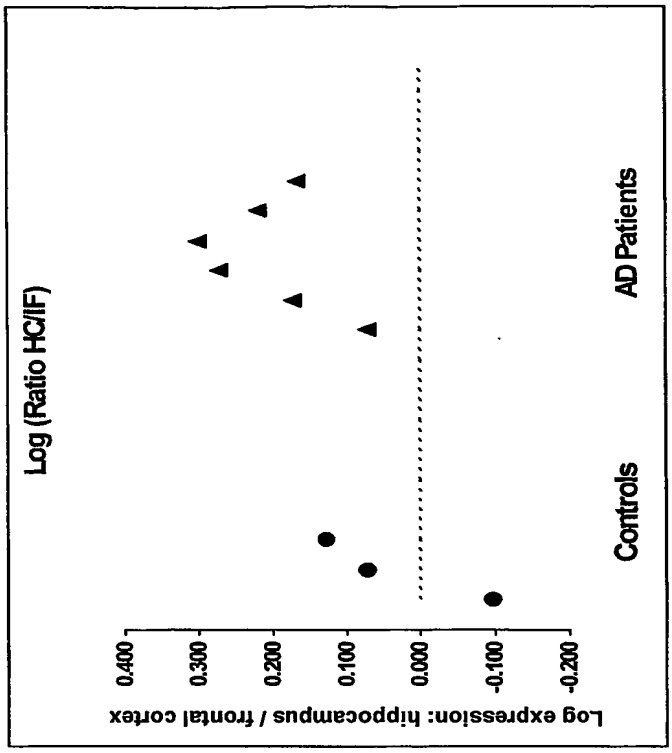

Fig. 9 :

sample	Δ (fold) (hippocampus / frontal cortex)
control C005	0.80
control C008	1.18
control C004	1.34
patient P012	1.18
patient P016	1.48
patient P010	1.87
patient P011	1.99
patient P014	1.65
patient P019	1.46

Fig. 10: Western Blot of H4APPsw cell protein extracts labeled with anti-SGPL1-myc antibodies

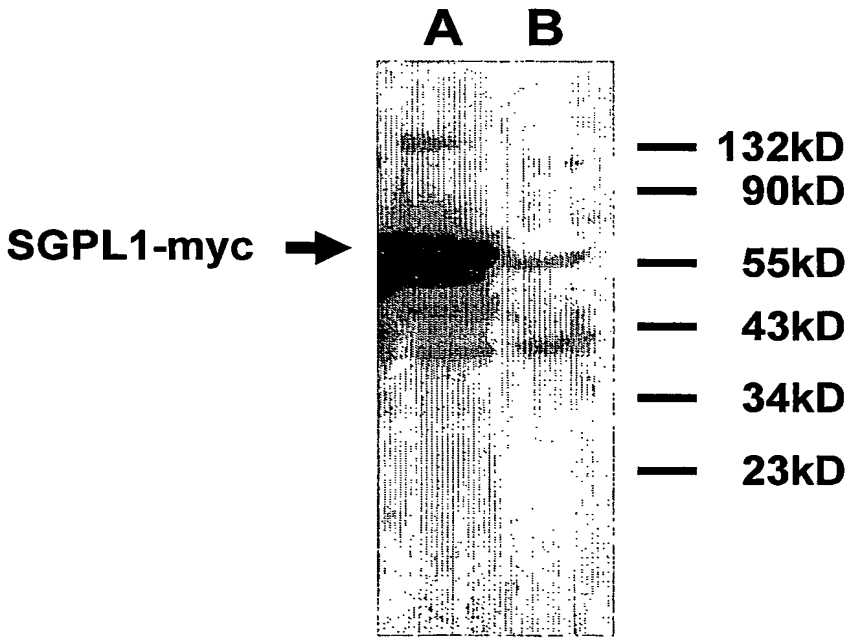

Fig. 11: Immunofluorescence analysis of SGPL1 protein in neuroglioma cells